REMARKS

Claims 1-38 are pending in the application.

Claims 1-8, 18-27, 35 and 36 have been rejected.

Claims 9-17, 28-34, 37 and 38 have been objected to.

Claims 9, 28 and 29 have been amended, as set forth herein.

I.   OBJECTIONS TO CLAIMS 9-17, 29, 37 and 38

Claims 9-17, 29, 37 and 38 were objected to because of informalities in Claims 9 and 29.

Applicant has amended these Claims in accordance with the Examiner's request. Accordingly,

Applicant respectfully request withdrawal of the informality objections to these Claims.

II.   ALLOWABLE SUBJECT MATTER

Applicant thanks the Examiner for the indication that Claims 9-17, 37 and 38 are objected

to due to minor informalities, but would be allowable if corrected. As set forth above, Applicant has

amended Claims 9 and 29 to correct the minor informalities. Therefore, Claims 9-17, 37 and 38 are

now allowable.

Applicant further thanks the Examiner for the indication that Claims 28-34 are objected to

due to minor informalities, but would be allowable if rewritten in independent form including all of

the limitations of the base claim and any intervening claims. Applicant has rewritten dependent

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Claim 28 in independent form (to include all the elements/features of independent Claim 21 and intervening dependent Claim 22). Therefore, Claims 28-34 are now allowable.

III.   REJECTION UNDER 35 U.S.C. § 102

Claims 1-8, 18-27, 35 and 36 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kuhn, et al. (US 6,327,565). The rejection is respectfully traversed.

A claim is anticipated only if each and every element is found, either expressly or inherently described, in a single prior art reference. The identical invention must be shown in as complete detail as is contained in the claim. MPEP § 2131 at p. 2100-70 (8th ed. rev. 1 February 2003).

As previously noted, independent claims 1, 7–8, 24 and 35 each recite that the hybrid speech model is a weighted combination of speech models from the plurality of speech models. Similarly, independent claims 21 and 36 each recite that the modified version of at least one speech model is generated using a predefined weighting constraint. As taught in the specification, the hybrid model is derived from the existing group of speech models using a weight vector assigning weights to each respective speech model within the group. Specification, page 20, line 18 through page 21, line 13. Such a feature is not found in the cited reference. Kuhn describes training a new speaker-dependent model by constructing a supervector from a linear combination of eigenvoices and estimating the linear combination of model coefficients (e.g., HMM parameters) that will comprise an adapted model for the new speaker. Kuhn, column 5, lines 27–57. However, Kuhn is silent as to weighting combinations of eigenvoices or model coefficients.

The Office Action notes the use of coefficients in Kuhn:

> The speaker dependent model 44 serves to estimate the linear combination of coefficients that will comprise the adapted model for that new speaker. Thus in step 50 a new set of HMMs is constructed based on supervector 48 to generate the adapted model 52.

Kuhn, column 5, lines 50-54. The Office Action asserts that such linear combination of coefficients comprises "weighting" of the models as recited in the claims. However, as taught in the specification, linear combinations are NOT necessary weighted combinations:

> The hybrid speech model is a combination of speech models of the model group 102 on the basis of the input signal derived from the spoken utterance received [from] an input 100. The speech models in the model group define a space indicative of the possible values that a hybrid speech model assocaited to a given speech element may take on. Preferably, the combination of speech models of the speech model group is such that the hybrid speech model is weighted toward the speaker specific speech model defined by the input signal received at the input 100.
>
> In a specific example of implementation, the hybrid speech model is derived by computing a linear combination of the speech models in the model group 102. The linear combination is characterized by a set of parameters indicative of weights associated to speech models in the model group 102. The combination is effected by selecting a set of weights that minimizes the difference between the linear combination of speech models from the model group and the signal received at input 100 as well as constraining the hybrid model to lie within the space defined by the speech models in the model group.

Specification, page 14, line 14 through page 15, line 4. Applicant's weights are computed in accordance with the Specification. Linear combinations could, for example, be simple "binary" combinations in which a given model is merely included or excluded, without weighting of each particular model. Accordingly, the mere teaching of linear combination of models is not sufficient to establish anticipation of weighting such linear combinations.

Accordingly, the Applicant respectfully requests the Examiner withdraw the § 102(e) rejection of Claims 1-8, 18-27, 35 and 36.

IV.   CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining Claims in the Application are in condition for allowance, and respectfully requests an early allowance of such Claims.

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at *rmccutcheon@davismunck.com*.
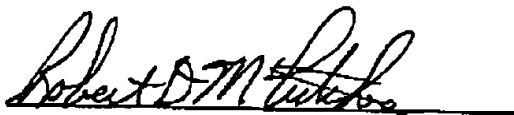
The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Davis Munck Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: 6/7/2004

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